

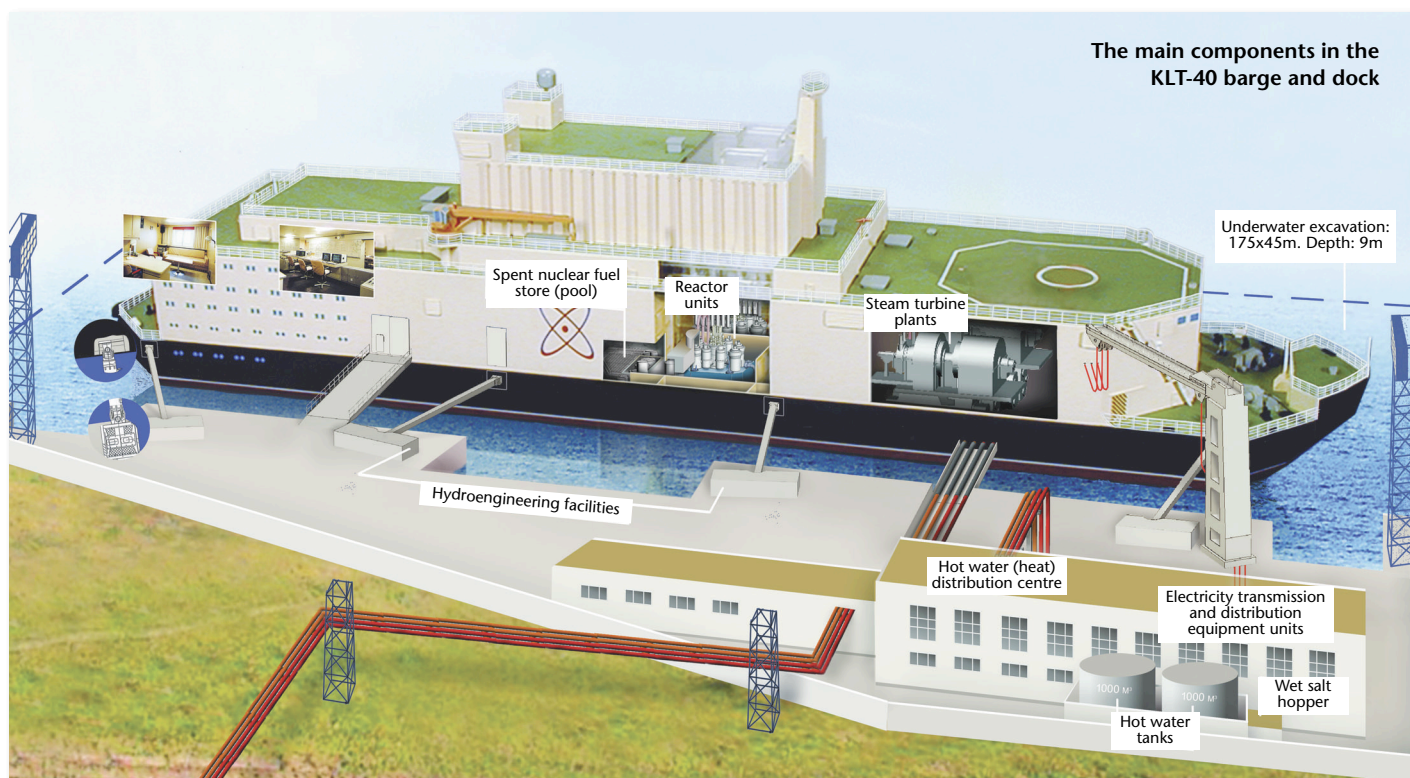
KLT-40S main data tables & diagram

Main data for the KLT-40S reactor

Reactor type	Pressurised-water, with vessel
Thermal power (MWt)	150
Electric power (MWe)	35 (with 25 Gcal/h of low-grade heat output); 19.4 (with max thermal power output, 73 Gcal/h)
Number of fuel assemblies	121
Refuelling interval (years)	2.3 (prototype) 3.5 (serial production)
Primary circuit pressure (MPa)	12.7
Primary circuit temperature at core outlet/inlet (°C)	316/280
Steam output (t/h)	240
Superheated steam pressure at steam generator outlet (MPa)	3.72
Superheated steam temp. at SG outlet (°C)	290

KLT-40S core characteristics

Energy supply per core load (TWh)	2.1
Service life (h)	21,000
Campaign duration (years)	2.3
Core height (mm)	1200
Core diameter (mm)	1219
Specific fuel rating (kW/l)	119
Maximum fuel enrichment (%)	15.7
U235 charge (kg)	179.2
Uranium charge (kg)	1273
Number of fuel elements in the core	8673 (in 121 assemblies)
Maximum fission fragment density in the fuel (g/cm ³)	0.72
Maximum fast neutron fluence with E>0.1 MeV (m ⁻²)	1.4x10 ²⁶
Average unloaded fuel burn-up for ceramic fuel (MWday/kgU)	46



The main components in the KLT-40 barge and dock